

Title (en)

Gate turn-off thyristor.

Title (de)

Thyristor mit Löschsteuerung.

Title (fr)

Thyristor à blocage par la gâchette.

Publication

**EP 0022355 A1 19810114 (EN)**

Application

**EP 80302258 A 19800703**

Priority

JP 8496479 A 19790706

Abstract (en)

The GTO thyristor consists of a semiconductor substrate 11 of disc shape which has, in sequence, an emitter layer 16 on the cathode side, a second base layer 15, a first base layer 13, 14, and an emitter layer 12 on the anode side. The emitter layer on the anode side is short-circuited by an emitter short-circuiting layer 13. The emitter layer 16 on the cathode side is divided into a plurality of radially extending elongate units, and the emitter layer 12 on the anode side is likewise divided into elongate units which are provided in the portions located at the areas of projection of the units of the layer 16 onto the anode side. The emitter short-circuiting layer 13 thus forms a plurality of wedge-shaped regions between the said areas of projection of the units of the layer 16. A thyristor of high current capacity and quick turn-off is thus achieved because the varying distance from the central lead wire 20 of the control electrode 18 is compensated by the varying width of the said wedge shaped regions of the emitter short circuit layer 13.

IPC 1-7

**H01L 29/743**

IPC 8 full level

**H01L 29/08** (2006.01); **H01L 29/74** (2006.01); **H01L 29/744** (2006.01)

CPC (source: EP US)

**H01L 29/0834** (2013.01 - EP US); **H01L 29/74** (2013.01 - EP US); **H01L 29/744** (2013.01 - EP US)

Citation (search report)

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CH DE FR GB NL SE

DOCDB simple family (publication)

**US 4786959 A 19881122**; DE 3067529 D1 19840524; EP 0022355 A1 19810114; EP 0022355 B1 19840418; JP S5610967 A 19810203; JP S6043668 B2 19850930

DOCDB simple family (application)

**US 30861481 A 19811005**; DE 3067529 T 19800703; EP 80302258 A 19800703; JP 8496479 A 19790706